ATTACHMENT A

OK TO ENTER: /A.P./

AMENDMENTS TO THE CLAIMS

Please amend Claims 9, 16, and 28 and cancel Claims 17, 18, and 27 as indicated below:

Claims 1-8 (**Canceled**).

9. (**Currently amended**) A method for controlling battery power comprising the acts of:

coupling a first input terminal for receiving a first external power source to a system power terminal via a first isolation diode, wherein the first external power source is provided by an AC adapter;

coupling a second input terminal for receiving a second external power source to the system power terminal via a second isolation diode connected in series with a current sensing circuit, wherein the second external power source is provided by a USB interface;

coupling a first bypass transistor across the first isolation diode, wherein the first bypass transistor is turned on when the first external power source is selected to provide power to the system power terminal;

coupling a second bypass transistor across the second isolation diode, wherein the second bypass transistor is turned on when the second external power source is selected to provide power to the system power terminal;

coupling an overriding diode between the first input terminal and a control terminal of the second bypass transistor to force the second bypass transistor ~~and forced~~ off and to effectively isolate the ~~second external power~~ USB interface from the system power terminal when the ~~first external power source is detected at~~ AC adapter is connected to the first input terminal;

coupling an internal battery to the system power terminal via a series-connected regulating transistor, wherein the regulating transistor comprises a first terminal connected to the system power terminal, a second terminal connected to the internal battery, a control terminal, and a configurable body

terminal connected to the system power terminal when the system power terminal has a greater voltage than the internal battery and connected to the internal battery when the internal battery has a greater voltage than the system power terminal; ~~and~~

charging the internal battery by linearly regulating the regulating transistor with an adjustable voltage at the control terminal of the regulating transistor to conduct a charging current in a first direction from the system power terminal to a positive terminal of the internal battery during a charging mode; and

using the current sensing circuit to measure current provided by the USB interface and to reduce the charging current in response to an increase in load current by varying the adjustable voltage at the control terminal of the regulating transistor when the measured current from the USB interface exceeds a predefined current threshold, wherein the current sensing circuit does not measure current provided by the AC adapter to reduce the charging current ~~level of the current provided to the internal battery is controlled by the level of the adjustable voltage to prevent a supply current from exceeding a predefined threshold~~.

10. (**Previously presented**) The method of Claim 9, further comprising the act of discharging the internal battery by regulating the regulating transistor to conduct a discharging current in a second direction from the positive terminal of the internal battery to the system power terminal during a discharging mode, wherein the first bypass transistor and the second bypass transistor are turned off during the discharging mode.

11. (**Previously presented**) The method of Claim 9, wherein the impedance of the regulating transistor varies to limit the level of the charging current.

12. (**Canceled**).

13. (**Previously presented**) The method of Claim 10, further comprising sensing a voltage difference between the system power terminal and the positive terminal of the internal battery to determine an operating mode, wherein the charging

mode occurs when a voltage at the system power terminal is greater than a voltage at the positive terminal of the internal battery and the discharging mode occurs when the voltage at the system power terminal is less than the voltage at the positive terminal of the internal battery.

14. (**Original**) The method of Claim 10, wherein the discharging mode occurs in response to a discharge command.

15. (**Canceled**).

16. (**Currently amended**) A method for controlling power to a battery, the method comprising:

coupling a first isolation diode between a first input terminal for receiving an external primary power source via an AC adapter and a system power terminal, wherein the first isolation diode has an anode coupled to the first input terminal and a cathode coupled to the system power terminal;

coupling a second isolation diode between a second input terminal for receiving an external secondary power source via a USB interface and the system power terminal, wherein the second isolation diode has an anode coupled to the second input terminal and a cathode coupled to the system power terminal;

coupling a first bypass transistor across the first isolation diode;

coupling a second bypass transistor across the second isolation diode;

coupling an electronic device to the system power terminal, wherein the electronic device demands a load current from the system power terminal;

coupling an internal battery to the system power terminal through a regulating transistor, wherein the regulating transistor comprises a first terminal connected to the system power terminal, a second terminal connected to the internal battery, a configurable body contact, and a control terminal;

sensing respective voltages of the system power terminal and the internal battery to control a connection of the configurable body contact, wherein the

configurable body contact is connected to the first terminal when the system power terminal has a greater voltage than the internal battery and connected to the second terminal when the internal battery has a greater voltage than the system power terminal; ~~and~~

driving the control terminal of the regulating transistor with a driving signal having linearly adjustable voltage levels to linearly regulate the level of a charging current conducted by the regulating transistor to charge the internal battery, wherein the level of the charging current provided to the internal battery is determined by the voltage level of the driving signal; and

sensing current provided by the USB interface to vary the charging current in response to changes in the load current such that a total current provided by the USB interface does not exceed a threshold current value.

17. (**Canceled**).

18. (**Canceled**).

, wherein the current provided by the AC adapter is not sensed and is not used to vary the charging current in response to changes in the load current.

/Aaron Piggush/ 12/07/2008

19. (**Previously presented**) The method of Claim 16, wherein the regulating transistor is a P-channel enhancement mode MOSFET with a source terminal coupled to the system power terminal and a drain terminal coupled to the internal battery.

20. (**Previously presented**) The method of Claim 16, wherein the regulating transistor is a MOSFET and a comparator is used to sense a voltage polarity of the regulating transistor to generate an output to control connections for the configurable body contact.

21. (**Previously presented**) The method of Claim 16, further comprising coupling an overriding diode between the first input terminal and a control terminal of the second bypass transistor to automatically disconnect the external secondary power source from the system power terminal when the external primary power source is connected to the first input terminal.

22. (**Previously presented**) The method of Claim 20, wherein the configurable body contact is coupled to the system power terminal during a charging mode and to the internal battery during a discharging mode.

23. (**Previously presented**) The method of Claim 20, wherein the configurable body contact is coupled to a transistor terminal with a relatively higher voltage during a shutdown mode to prevent current flow in a body diode and thereby fully disconnecting the internal battery from the system power terminal.

24. (**Canceled**).

25. (**Previously presented**) The method of Claim 9, further comprising the acts of:

sensing a voltage difference between the system power terminal and the positive battery terminal; and

generating a feedback control signal operative to vary the level of the adjustable voltage at the control terminal of the regulating transistor based on the voltage difference and a voltage at the control terminal of the regulating transistor.

26. (**Previously presented**) The method of Claim 9, wherein the regulating transistor fully disconnects the internal battery from the system power terminal during a disable mode.

27. (**Canceled**).

28. (**Currently amended**) The method of Claim 25, further comprising:

~~sensing current being supplied by the second external power source;~~

~~comparing the sensed current with the predefined threshold; and~~

generating an error signal based on a difference between the measured current from the USB interface and the predefined current threshold; and

~~to override~~ overriding the feedback control signal with the error signal ~~and~~ to control the level of the adjustable voltage for the regulating transistor when the sensed current is greater than the predefined current threshold.

29. (**Previously presented**) The method of Claim 16, wherein the first and second bypass transistors are p-type transistors and pull-up resistors are coupled

between respective control terminals of the bypass transistors and the system power terminal while pull-down transistors are coupled between the respective control terminals of the bypass transistors and a reference potential to selectively activate the bypass transistors.

30. (**Previously presented**) The method of Claim 20, further comprising using the voltage polarity of the regulating transistor to qualify an external discharge signal.

31. (**Previously presented**) The method of Claim 22, further comprising coupling a switching diode across the regulating transistor to improve battery response during the discharging mode, wherein the switching diode is inactive during the charging mode.